

## **REMARKS**

Applicants appreciate the recognition of the patentable subject matter of claims 81-90, 97-98, 101-102 and 111.

Applicants hereby add new claims 112-120. Accordingly, claims 65-120 are pending in the present application.

Applicant respectfully traverses the rejections of the Office Action and requests allowance of the present application.

Referring to the indefiniteness rejection of claim 67, Applicant refers the Examiner to Fig. 2 in at least one embodiment. Electrical interconnects 44 are illustrated extending between opposing surfaces 39, 41 of workpiece holder 12. As further shown in Fig. 2, electrical interconnects 44 terminate at locations planar with surfaces 39, 41. Accordingly, electrical interconnects 44 clearly operate to electrically couple the surfaces 39, 41 with one another. Page 9, lines 21-23 provide that interconnects 44 conduct or communicate signals intermediate surfaces 39, 41. When properly considered in view of the application teachings, claim 67 is clear to one of ordinary skill in the art and Applicant respectfully requests withdrawal of the indefiniteness rejection of claim 67 for at least the above-mentioned reasons.

Referring to the indefiniteness rejections of claims 68 and 73, Applicant refers the Examiner to the teachings of Fig. 3 illustrating opposing surfaces 60, 61 of workpiece holder 12 embodied as an intermediate member 60. It is clear that surface 61 faces the wafer and surface 62 faces a chuck 40. Applicant submits that claims 68, 73 are understood by one of skill in the art when properly considered in view of the application

teachings and Applicant requests withdrawal of the indefiniteness rejections in the next Action for at least these reasons.

With regards to the anticipation rejection of claim 64 over Barnes, Applicant refers initially to the allegation on pages 3-4 of the Office Action that it would have been well known in the art that the wafer would have electrical coupling on its back. Applicant traverses the assertion that the limitations of claim 64 which are not shown nor suggested by Barnes are well known as alleged. In particular, there is absolutely no evidence of record that, even if pads or traces are on a back of a wafer as alleged in the Action, *there is absolutely no teaching in the prior art of the claimed wafer holder including an electrical coupling configured to electrically couple with an electrical coupling of the wafer and communicate signals between the wafer and the wafer holder* as recited in claim 64. Claim 64 is allowable for at least this reason.

Further, Barnes fails to disclose or suggest the *electrical coupling of the electrical couplings of the wafer and the wafer holder* as claimed. Barnes relies upon the use of *electrostatic forces* to hold the workpiece in place and accordingly no electrical coupling as claimed is provided or suggested. In particular, Barnes only discloses usage of electrodes 34, 38 for the application of the electrostatic forces to the wafer to hold the wafer to the chuck. The *electrostatic forces are not electrical signals* and accordingly there is no need for an electrode on a back of a wafer as alleged. Referring to col. 2, lines 32-43 of Barnes, it is stated that the capacitance between the electrodes 34, 38 is measured prior to contact of a wafer to the chuck and after contact of the wafer to the chuck. Accordingly, it is clear that the measurement with or without the presence of the wafer contacting the

chuck illustrates that no contacts are needed in Barnes nor taught thereby. Barnes fails to disclose limitations of claim 64 and such claim is allowable for at least this reason.

In addition, the asserted anticipatory reference Barnes actually teaches away from the claimed electrical coupling between the wafer and the wafer holder. For example, Barnes teaches the application of **substantial electrostatic forces** (col. 1, lines 57-60) responsive to substantial DC electrical energy to hold the wafer in position. If Barnes were modified to provide electrical coupling of terminals 34, 38 with electrical couplings of a wafer, the device would be rendered inoperable inasmuch as the electrical couplings of the wafer may fuse with the electrostatic chuck or have other associated negative results with the usage of the substantial electrostatic forces resulting from substantial DC energy.

The fact is there is absolutely no reference of record of the claimed wafer processing device including the wafer holder and *electrically coupling* the electrical couplings of the wafer and wafer holder as claimed. The absence of any reference teaching of a wafer having an electrical coupling electrically coupled with an electrical coupling of a wafer holder clearly supports Applicant's position that such limitations are not "well known." Applicant traverses the reliance upon an allegation that limitations of claim 64 are well known and seasonably challenges such assertion pursuant to MPEP §2144.03 (8<sup>th</sup> ed.), and requests the Examiner cite a reference in support of his or her position. Applicant believes reasonable doubt exists regarding the Examiner's assertion of judicial notice. The Examiner is reminded that the facts constituting the state of the art are normally subject to the possibility of rationale disagreement among reasonable men and are not amenable to the taking of judicial notice. See *In re Eynde*, 480F.2d 1364, 1370,

178 USPQ 470, 474 (CCPA 1973). The Examiner is also reminded that claims are analyzed in the context of the combination of the various separately stated limitations, and not with respect to the limitations individually. Pursuant to MPEP §2144.03 (8<sup>th</sup> ed.), Applicant hereby demands evidence with respect to what the Examiner apparently relies upon as being "well-known."

The claims which depend from independent claim 64 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

For example, referring to claim 67, references 16, 26, 28 are identified as allegedly disclosing the claimed wafer holder. Electrodes 34, 38 are embedded within metal housing 42 and electrodes 34, 38 fail to disclose or suggest the claimed electrical interconnect configured to electrically couple the first surface and the second surface as claimed. Other electrical connections are merely illustrative and do not illustrate implemented circuitry. Claim 67 is in condition for allowance.

Referring to claim 75, it is recited that the electrical coupling comprises a conductive column configured to extend outward from plural surfaces of the wafer holder. Figs. 9 and 11-12 of the originally filed application illustrate exemplary conductive columns. The "electrical wires" identified in the Office Action are merely illustrative in the Barnes reference and fail to provide any details which may be considered to anticipate the conductive column recited in claim 75. Claim 75 is allowable.

Referring to claim 77, the wafer is devoid of any electrical coupling. As discussed above, it is not well known to provide a wafer having an electrical coupling. Even if circuitry

is formed on a wafer during processing it is not taught nor suggested in the art to contact an electrical coupling of the wafer with the electrical coupling of the wafer as defined in claim 77. Claim 77 is allowable for at least these additional reasons.

Referring to the anticipation rejection of claim 79 over Berger, Applicant submits Berger is directed towards test and burn-in operations and is devoid of any teachings towards processing of a wafer. Accordingly, it also follows that since Berger is not directed towards *processing of wafer*, it is inconceivable that Berger may be considered to disclose a wafer holder having circuitry configured to communicate a process signal from a received wafer and containing information regarding processing of the wafer using the wafer processing apparatus as claimed. Limitations of claim 79 are not shown nor suggested by the art and claim 79 is allowable for at least this reason.

Referring to the anticipation rejection of claim 79 over Barnes, Barnes fails to disclose or suggest the wafer holder having circuitry configured to communicate the process signal containing information regarding processing of the wafer. In Barnes, the capacitance across the electrodes is measured before and after application of a wafer and prior to any processing of the wafer. In particular, Barnes is directed towards determining whether a wafer is correctly positioned upon a wafer holder before the wafer to be processed is clamped to the wafer holder by the electrostatic forces. Processing only occurs after the wafer has been clamped to the wafer holder. Accordingly, the measured capacitance occurs before any processing and the electrostatic forces are merely clamping forces which fail to contain information regarding processing of a wafer using the apparatus. Barnes fails to disclose or suggest the claimed communication of the process

signal containing information regarding the processing of the wafer and claim 79 is allowable for at least this reason.

The claims which depend from independent claim 79 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 91, the prior art is devoid of the claimed *communication of signals between the electronic device workpiece and the workpiece holder during the fabrication of integrated circuitry of the electronic device workpiece using the electronic device workpiece processing apparatus* as defined in claim 91. Berger is directed towards testing and burn-in of already fabricated devices and there is no communication of signals during the fabrication of integrated circuitry as recited in claim 91. Claim 91 is allowable for at least these reasons.

The claims which depend from independent claim 91 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

For example, Berger directed towards testing and burn-in is devoid of teaching or suggesting the limitations of claim 92. Claim 92 is in condition for allowance.

The claims which depend from independent claim 91 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 108, pursuant to the above, Applicant traverses the Office's assertion that limitations of claim 108 are well known. In particular, as evidenced by the lack of prior art, the limitations of the *electrical coupling of the wafer holder configured to electrically couple with the electrical coupling of the wafer and to communicate signals between the wafer and the wafer holder* is not shown nor suggested by the prior art. Even if a wafer were processed to include circuitry, there is no teaching in the art to electrically couple an electrical coupling of the wafer with an electrical coupling of the wafer holder and to communicate signals between the wafer and the wafer holder as claimed. Barnes' measurement of capacitance is provided only using electrodes 34, 38 without an electrical coupling structure of the wafer. Further, the electrostatic forces are applied without usage of an electrical coupling structure of the wafer. Barnes is devoid of teaching or suggesting at least the above-recited limitations and claim 108 is allowable for at least this reason. Applicant requests issuance of a *non-final* Action if claim 108 is not allowed to respond to Applicant's traversal of the reliance upon limitations of claim 108 allegedly being well known pursuant to MPEP 2144.03.

The claims which depend from independent claim 108 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 109, Barnes fails to disclose contacting of electrical couplings of a wafer and a wafer holder. Claim 109 is allowable for at least this additional reason.

Referring to claim 110, Barnes fails to disclose or suggest communicated signals comprising information regarding processing of the wafer. Claim 110 is allowable for at least this additional reason.

Applicant hereby adds new claims 112-120. Support for the new claims may be found at least at Figs. 1-2 and 7-9 and associated teachings of the originally-filed specification.

With respect to the refusal to enter the amendment to the drawings, MPEP Section 2163.07(a) (8<sup>th</sup> ed.) states that by disclosing in a patent application a device that inherently performs a function or has a property, operates according to a theory or has an advantage, a patent application necessarily discloses that function, theory or advantage, even though it says nothing explicit concerning it. The application may later be amended to recite the function, theory or advantage without introducing prohibited new matter. *In re Reynolds*, 443 F.2d 384, 170 USPQ 94 (CCPA 1971); *In re Smythe*, 480 F.2d 1376, 178 USPQ 279 (CCPA 1973). The originally-filed specification disclosed a wafer processing apparatus which inherently discloses a processing area. Applicant respectfully requests reconsideration of the refusal by the Office and entry of the drawing amendment filed October 20, 2003 at least in view of MPEP 2163.07(a).

With respect to the objection to the disclosure, Applicant submits the processing area is inherent in the wafer processing apparatus of the originally-filed application. Applicant respectfully requests reconsideration and withdrawal of the objection to the disclosure. If the objection is not withdrawn, Applicant respectfully requests clarification of the exact portions of the disclosure objected to so Applicant may appropriately respond.



With respect to the withdrawn claims, Applicant again submits the withdrawal is improper in accordance with the MPEP for at least the reasons presented in previously-filed responses and again requests examination of the withdrawn claims.

Applicant respectfully requests allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

Dated: 6/17/04

By: 

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